

# PRIMARY FALLOPIAN TUBE CANCER MAY MIMIC ENDOMETRIAL MALIGNANCY

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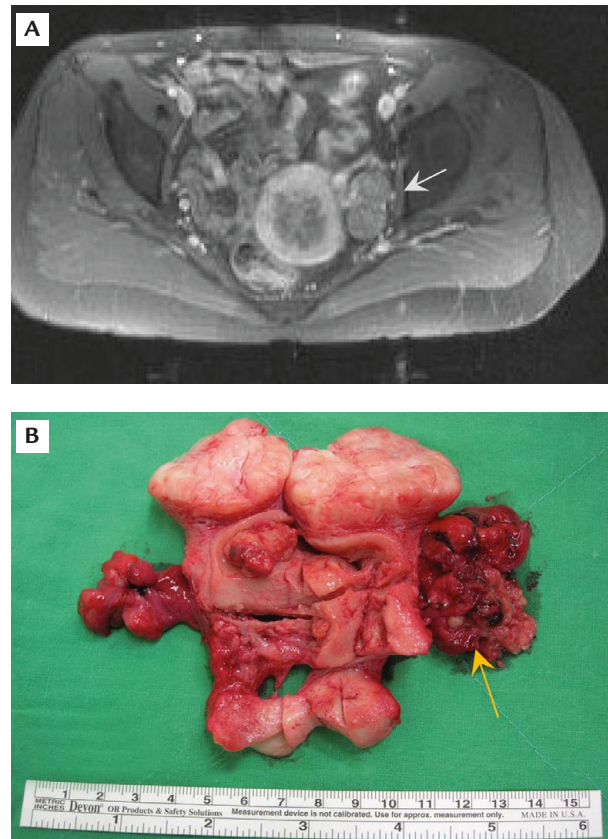
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Primary fallopian tube carcinomas are rare and account for approximately 0.14–1.8% of female genital malignancies [1]. Fallopian tube carcinoma most frequently occurs in women between the ages of 40 and 60 years. The most common histologic type is serous type, and the staging system is similar to that of epithelial ovarian carcinomas. We describe a woman who complained of postmenopausal vaginal bleeding and had been previously diagnosed with serous papillary adenocarcinoma of the endometrium; however, the final results revealed primary fallopian tube carcinoma.

A 52-year-old postmenopausal woman, gravida 2, para 2, presented with postmenopausal vaginal bleeding. She sought help at a hospital where the endometrial biopsy initially revealed no evidence of malignancy. She received medical treatment, but the vaginal bleeding persisted. A fractional endometrial biopsy was performed, and adenocarcinoma of the endometrium of the papillary serous type was noted. Immunohistochemical studies revealed strong positive reactivity of p53 protein. The endocervical specimen was negative for malignancy. She visited our gynecology department for help, and a high level of CA-125 (200.7 unit/mL) was found. The pelvic magnetic resonance imaging was performed before the operation, and there was no evidence of abnormal thickening or nodularity in the endometrium and no significant lymphadenopathy in the pelvis (Figure 1A). Two small fibroid tumors (15 and 10 mm in size) were present in the myometrium. Early-stage endometrial malignancy without tumor mass was suspected before the operation. We performed staging laparotomy including extrafascial total abdominal hysterectomy, bilateral salpingo-oophorectomy, bilateral pelvic and paraaortic lymph node dissection, infracolic omentectomy, and peritoneal cytology. No gross lesions of the bivalved uterus were noted. We also found that the left fallopian

tube was engorged with intact contour and papillary contents (Figure 1B). Primary fallopian tube carcinoma was suspected. The pathologic results confirmed the diagnosis of stage Ic serous papillary adenocarcinoma of the fallopian tube (Figure 2). Adjuvant chemotherapy with a regimen of cyclophosphamide and carboplatin was administered. The patient withstood six courses of chemotherapy well, and the level of CA-125 decreased to within the normal range. She was well followed up at our outpatient department.

The most common presentation of primary fallopian tube carcinoma is vaginal bleeding and discharge



**Figure 1.** Left adnexal mass. (A) Preoperative T2-weighted image showing a large uterine myoma ( $4.9 \times 3.5 \times 3.5$  cm) occupying the ventral aspect of the uterus, together with a pedunculated mass ( $3.7 \times 2.1$  cm; arrow) protruding in the left adnexa. (B) Gross appearance of specimen showing the left adnexal tumor (arrow).



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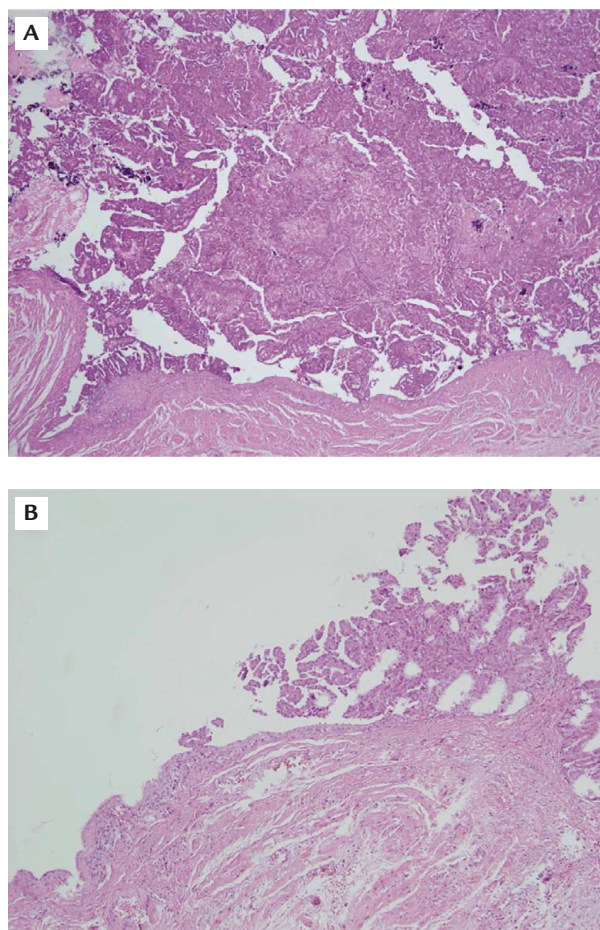
(50–60%), followed by abdominal pain (30–49%) and abdominal mass (12–61%) [2]. Fallopian tube carcinoma spreads in much the same manner as epithelial ovarian cancer. Approximately 80% of patients are diagnosed during the advanced stages of the disease. Some rare cases of primary fallopian tube carcinoma are even diagnosed when cerebral metastasis or subclavian lymphadenopathy develops [3]. Patients who are diagnosed during the early stages are fortunate. The previous diagnosis of endometrial carcinoma of the serous papillary type was thought to be caused by the tumor cells that dropped into the uterine cavity. This is the reason why the specimen was noted in the second fractional endometrial biopsy.

Surgery is the definitive treatment and involves total abdominal hysterectomy with bilateral salpingo-oophorectomy and infracolic omentectomy. Controversy exists regarding the role of routine lymphadenectomy. Routine retroperitoneal sampling and node dissection of the pelvic and paraaortic nodes are required. Postoperative treatment includes adjuvant chemotherapy

and radiotherapy. There have been no randomized trials of fallopian tube carcinoma treatment using radiotherapy and chemotherapy. However, chemotherapy using a platinum-containing regimen, including cisplatin/carboplatin, paclitaxel-containing regimens and the standard combination of cyclophosphamide, adriamycin and platinum, have been proved to be effective [4,5].

It is known that elevated serum CA-125 level is closely related with the presence of disseminated cancer cells in the peritoneal cavity. Koji et al [6] reported that CA-125 levels correlated with the advanced stages of adenocarcinoma of the uterine corpus. Therefore, the possibility of fallopian tube malignancy should be kept in mind when diagnosing patients with elevated CA-125 levels without obvious endometrial lesions.

Results of a recent study revealed that no cancer or hyperplasia was subsequently diagnosed among women with endometrial thicknesses of less than 4 mm [7]. There were rare relationships between fallopian tube cancers and endometrial cancers except for the BRCA gene mutation [8]. Although the transvaginal ultrasonography and cervical cytologic examination results are adequate for managing women with postmenopausal vaginal bleeding, we should always consider the rare event of tubal malignancy, when there is elevation of CA-125 levels with no obvious endometrial thickening.



**Figure 2.** Pathology of adnexal tumor. (A) Fallopian serous papillary carcinoma and tumor-occupying lumen cavity (hematoxylin and eosin, 40×). (B) Transition zone of fallopian serous papillary carcinoma progress, from left to right (hematoxylin and eosin, 100×).

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